

YOUNG & green



EUGENIE SAGE meets three lively Christchurch students whose initiatives have provided useful information about nature's processes and who have tried to inspire more careful treatment of their local Avon-Heathcote river system.

NOW 15, Bryn Fenwick can't remember when he first became interested in natural history although he recalls often carrying buckets and collecting sandhoppers as a young child during seaside field trips with his parents.

As a third former Bryn was curious about the effects of rubbish such as paper and plastic on crabs, snails and other inhabitants of the Avon-Heathcote estuary. As part of a project for the Canterbury secondary school science fair he surveyed the types and amounts of natural and urban detritus found around the estuary.

Drift kelp, weed, feathers and shells were the most common natural debris at his 12 survey sites, with plastic, paper, glass and wire the main types of human rubbish. Plastic products accounted for

over a third of the rubbish at some sites.

In two experiments, one in controlled conditions and the other in the field, he investigated whether seashore animals such as crabs and an amphipod (common beach flea) ate and helped break down the rubbish and clean up the estuary.

He concluded that paper products such as brown paper bags, paper towels, and magazine pages were eaten by these species. As expected, none of the animals fed on plastic. Bryn calculated that with the help of amphipods, a brown paper bag which would normally take about five years to decompose would be broken down in about 64 days.

During his debris survey Bryn often found takeaway food wrappings and packaging and drink cans among the sea's leavings on the strand line, especially in areas close to picnic sites and carparks. Turning his research findings into conser-

vation advocacy he designed posters for distribution around local fast food outlets with the message, "Hemi the crab says, 'Keep your rubbish to yourself. We can only process paper, not plastic,'" and "There are over 60 different types of animals and plants on the beach. Let's keep it that way by recycling our rubbish."

Bryn's estuary work has convinced him that changing the "big picture" through national policies is more important than individual action in reducing plastic pollution.

"Plastic products are a curse – they strangle seals, suffocate whales and they take ages to biodegrade. But even if I avoid using things with plastic, that's not going to affect the manufacturers one bit. It would be really good if there was a system like in Japan where before any new product came onto the market the manufacturer had to have a complete system